

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A pattern forming method comprising:

providing a polymerization initiation layer which is obtained by fixing, by a cross-linking reaction, a polymer having functional groups having polymerization initiation ability and cross-linking groups at side chains, on a support; and

forming a pattern comprising a preparation zone and a non-preparation zone of a graft polymer by preparing the graft polymer on the surface of the polymerization initiation layer using graft polymerization, by contacting a compound having a polymerizable group on the polymerization initiation layer and supplying energy imagewise.

2. (original): An image forming method comprising:

providing a polymerization initiation layer which is obtained by fixing, by a cross-linking reaction, a polymer having functional groups having polymerization initiation ability and cross-linking groups at side chains, on a support;

forming a pattern comprising a preparation zone and a non-preparation zone of a graft polymer by preparing the graft polymer on the surface of the polymerization initiation layer using graft polymerization, by contacting a compound having a polymerizable group on the polymerization initiation layer and supplying energy imagewise; and

adhering a colorant on the preparation zone or the non-preparation zone of the graft polymer.

3. (original): A fine particle adsorption pattern forming method comprising:

forming a polymerization initiation layer which is obtained by fixing, by a cross-linking reaction, a polymer having functional groups having polymerization initiation ability and cross-linking groups at side chains, on a support;

preparing a graft polymer having a polar group in a pattern shape on the surface of the polymerization initiation layer; and

adsorbing fine particles on the graft polymer.

4. (original): A fine particle adsorption pattern forming method comprising:

forming a polymerization initiation layer which is obtained by fixing, by a cross-linking reaction, a polymer having functional groups having polymerization initiation ability and cross-linking groups at side chains, on a support;

forming a pattern comprising a preparation zone and a non-preparation zone of a graft polymer by preparing the graft polymer on the surface of the polymerization initiation layer using graft polymerization, by contacting a compound having a polymerizable group and a polar group on the polymerization initiation layer and supplying energy imagewise; and

adsorbing fine particles on the preparation zone of the graft polymer.

5. (original): A fine particle adsorption pattern forming method comprising:

forming a polymerization initiation layer which is obtained by fixing, by a cross-linking reaction, a polymer having functional groups having polymerization initiation ability and cross-linking groups at side chains, on a support;

forming a pattern comprising a hydrophilic zone and a hydrophobic zone on the surface of the polymerization initiation layer, by providing a polymer compound layer comprising a polymer compound which is directly and chemically bonded with the polymerization initiation layer and has a functional group whose hydrophilicity or hydrophobicity is changed by heat, acid or radiation and applying heat, acid or radiation imagewise to the polymer compound layer; and adsorbing fine particles on the hydrophilic zone or the hydrophobic zone.

6. (original): A conductive pattern forming method comprising:

forming a polymerization initiation layer which is obtained by fixing, by a cross-linking reaction, a polymer having functional groups having polymerization initiation ability and cross-linking groups at side chains, on a support;

preparing a graft polymer having a polar group in a pattern shape on the surface of the polymerization initiation layer; and

adsorbing a conductive material on the graft polymer.

7. (original): A conductive pattern forming method according to claim 6, wherein the conductive material is further heated at a temperature in a range of 50 to 500°C after the conductive material is adsorbed.

8. (original): A conductive pattern forming method comprising:

forming a polymerization initiation layer which is obtained by fixing, by a cross-linking reaction, a polymer having functional groups having polymerization initiation ability and cross-linking groups at side chains, on a support;

forming a pattern comprising a preparation zone and a non-preparation zone of a graft polymer by preparing the graft polymer on the surface of the polymerization initiation layer using graft polymerization, by contacting a compound having a polymerizable group and a polar group on the polymerization initiation layer and supplying energy imagewise; and

adsorbing a conductive material on the preparation zone of the graft polymer.

9. (original): A conductive pattern forming method comprising:

forming a polymerization initiation layer which is obtained by fixing, by a cross-linking reaction, a polymer having functional groups having polymerization initiation ability and cross-linking groups at side chains, on a support;

forming a pattern comprising a hydrophilic zone and a hydrophobic zone on the surface of the polymerization initiation layer, by providing a polymer compound layer comprising a polymer compound which is directly and chemically bonded with the polymerization initiation layer and has a functional group whose hydrophilicity or hydrophobicity is changed by heat, acid or radiation and applying heat, acid or radiation imagewise to the polymer compound layer; and

adsorbing a conductive material on the hydrophilic zone or the hydrophobic zone.

10-19. (canceled)

20. (new): A pattern forming method comprising:

providing a polymerization initiation layer which is obtained by fixing, by a cross-linking reaction, a polymer having functional groups having polymerization initiation ability and cross-linking groups at side chains, on a support; and

forming a pattern comprising a preparation zone and a non-preparation zone of a graft polymer by preparing the graft polymer on the surface of the polymerization initiation layer using graft polymerization, by contacting a compound having a polymerizable group on the polymerization initiation layer and supplying energy having a wavelength of 250 nm to 800 nm imagewise.

21. (new): A pattern forming method comprising:

providing a polymerization initiation layer which is obtained by fixing, by a cross-linking reaction, a polymer having ketone groups having polymerization initiation ability and cross-linking groups at side chains, on a support; and

forming a pattern comprising a preparation zone and a non-preparation zone of a graft polymer by preparing the graft polymer on the surface of the polymerization initiation layer using graft polymerization, by contacting a compound having a polymerizable group on the polymerization initiation layer and supplying energy imagewise.